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Comments of the Allied Pilots Association,

In response to,

ATA, ALPA and Boeing request for ETOPS

policy change

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COMMENTS ON ATA/ALPA/BOEING PROPOSAL

The Allied Pilots Association is opposed to this exception to the current **ETOPS** standards. We do not choose to oppose this important change lightly. Our pilots currently operate **757, 767, 777**, and **A300** aircraft on routes that require **ETOPS** procedures.

American, our employer, has begun to operate its North Pacific routes with the **777**. Our **MD-11** aircraft have been sold and will be delivered to their purchaser within a few years. It is likely that our entire fleet will consist of two engine aircraft within the foreseeable future. Since American operates an extensive network of international routes, we recognize that our economic future as well as our safety depends on **ETOPS** policies and procedures that are both safe and economically viable

Need for Change not Shown

Those who propose to alter the existing standards have not presented any justification for doing so; they have simply asserted a need. That is the crux of our opposition; we do not perceive a valid need to extend **ETOPS** operations beyond three hours. We are aware of only one market, between South America and New Zealand, which can't be operated with the current three hour standard. If necessary, the FAA could consider an exemption limited to that route. Even if we are incorrect in our belief that there is no need to extend **ETOPS** beyond three hours, whatever need there may be can be addressed with a narrowly tailored exemption fitted to the demonstrated need.

It is our perception that this proposal is only the beginning of a general move to relax existing standards for **ETOPS**. That can be seen here. The **ATA/ALPA/Boeing** proposal contains only a general allusion to problems in the North Pacific. Then follows a draft proposal that would grant **3-hour** and **27** minute **ETOPS** authority without restriction as to geographic area or limited to any set of conditions which must exist prior to its exercise. The proposal is really a request for a general extension of **ETOPS**, couched in the language of request for a limited exemption.

## Technical Aircraft Requirements

The proponents of this change rely heavily on the technical merits of the **B777**. The Allied Pilots Association is not in a position to challenge any of the calculations that underlie the **Boeing 777 Reliability Study** and we have no interest in doing so. We do point out that two of the engine models currently used on the **B777** have already been the subject of FM Aeronautical Directives mandating the redesign and replacement of important subassemblies because of in service failures. 52 Fed. Reg. 23339, Apr. 30, 1997, and 63 Fed. Reg. 169, Tan. 5, 1998. It is clear that the failure of components like these directly affects **ETOPS** operations. No one involved in the design or certification process of **B777** aircraft equipped with these engines for **ETOPS** operations anticipated these problems. Studies are often different than actual experience.

We do not believe the technical merit of an aircraft is an adequate justification for extending **ETOPS** where there is no need to do this. For that reason we agree with the proposal's recommendation that the FAA consider applying some **ETOPS** criteria, such as the availability of suitable **enroute** alternates which may be required to deal with contingencies other than engine failure, to the operation of three and four engine aircraft.

Our concerns are focused on the purported usefulness of extending **ETOPS**, and some of the operational assumptions that are made in the first portion of the Executive Summary: **B777 Reliability Study**. **These** are discussed in other sections of our submission.

## Availability of Diversion Airports

Extending **ETOPS** would tend to make some of the currently relied on diversion airports redundant. Those that are not economically viable may eventually close or not have their facilities maintained if they are not required in order to make **ETOPS** operations viable. These key diversion airports are useful to all operators. Boeing has gathered data that shows that these airports are used as often by three and four engine aircraft as they are by **ETOPS** operators. The current proposal states that the requested **ETOPS** extension will not be used as a justification to close diversion

1 airports. We find this unpersuasive. The only way to keep **some** of these airports open is to write  
2 checks. Some of the airports are under either foreign control or funded by local governments.  
3 Neither the proponents of this change nor the FAA can keep these airports open by an **expression**  
4 of good faith. More is likely to be required. It is our understanding that Boeing today writes checks  
5 to keep the airport at Midway Island open.

6 It is our belief that the entire industry benefits by the existence of an adequate selection of  
7 diversion airports. The cost of maintaining these airports should be more or less a fixed cost that  
8 could be spread over an ever-increasing user base as traffic grows. All projections indicate growing  
9 traffic. Thus the cost per operation of maintaining diversion airports is likely to decline over time.  
10 One does not often get an opportunity to buy declining term life insurance. Although this is not  
11 directly at issue in this proposal, we again urge the FAA to take a leadership role on this issue.

#### 12 Current Proposal Inadequate in Any Case

13 Should the FAA find that **ETOPS** policy should be changed to authorize 3 hour and 27-  
14 minute diversion times, it remains for the FAA to establish the conditions that would justify the use  
15 of a three hour and 27 minute exemption. Those who seek this change haven't done that. If granted  
16 we believe the proposed exemption should be limited to specific routes and then only authorized  
17 when specific conditions exist which justify the exemption as the safest available alternative. The  
18 proposal is unclear on these vitally important points, as we shall illustrate in our comments.

19 Not all the proponents have complete faith in the wisdom of this proposal. We have learned  
20 that at least one of the pilot groups which supports this proposal has done so only on the basis of a  
21 private agreement with their employer that the proposed **ETOPS** extension will only be used if  
22 additional, agreed upon conditions are met.

#### 23 Why is any extension required?

24 The Air Transport Association letter, which accompanied the draft proposal in the federal  
25 register of April 27 states that "member airlines have determined that a need exists for expanded

ETOPS authority beyond 180 minutes.” The draft proposal says “The FAA has determined that a need exists..” In fact, no such need has been established. These are unsupported assertions. The draft proposal vaguely alludes to political concerns, weather and operational necessities without any elaboration. 64 Fed. Rep. 22668, Apr. 27, 1999, par. a. One must guess at the exact nature of the asserted need.

The Allied Pilots Association has been an active participant in industry discussions on this topic up until late 1998. We have heard from Boeing and the operators in these discussions that there are only a few days a year when alternate routings would have to be considered for twin engine aircraft operating on the North Pacific routes due to unsuitable weather at the preferred alternates. If all the alternates, including those located in Siberia, are considered, there would likely be only one day a year when weather would compel an operator to select a somewhat longer route to stay within 180 minutes of a suitable alternate. That doesn’t seem to us to establish a real need.

The proponents of this change avoid stating their case plainly because it is very weak. We believe the real motivations for this proposed change are not stated in the proposal. Boeing can more effectively market the 777 as a replacement for older, three and four engine aircraft if ETOPS restrictions are eased. It is more convenient and slightly more economical if the operators can plan on flying the optimum routing every day of the year without regard to weather at certain diversion G-ports, and if they can rule out the use of some of the available diversion airports.

An increase in the allowable diversion time increases the risk to the flying public, even though some argue that the risk is slight. Therefore, it is imperative that the case for loosening the restrictions be stated plainly and that enough data be presented so that the FAA can make a rational cost/benefit analysis.

Here are a few unanswered questions that seem important to US:

- ◆ How many days a year does each of the available diversion alternates fail to meet current diversion weather standards?

- ◆ Which alternates are considered?
- ◆ If less than all available alternates are considered, why is each eliminated?
- ◆ Is the basis of elimination of some alternates factors other than weather and **proximity** to the routing involved?
- ◆ What alternate **routings** are used when the current three-hour standard precludes the use of **the** desired routing?
- ◆ How much longer are the alternate **routings** and how often is it necessary to use them?
- ◆ What is the added cost?
- ◆ Would it be possible to avoid or lessen the problem by installing better approach aids at the existing diversion airports?
- ◆ What would it cost to do this?
- ◆ How could that cost be apportioned among the beneficiaries?
- ◆ If the exemption is granted, what conditions authorize its use?
- ◆ Who decides that those conditions exist?
- ◆ Is the information used to establish that the exemption may be used available to the captain prior to release?

The proponents of change have not presented their answers to any of these questions, all of which seem to us a predicate to FAA consideration of an exemption request.

What is the real result of this proposal?

The executive summary of the Boeing 777 Reliability Study asserts that an aircraft is likely to be closer to suitable alternates if it flies a route based on a 207 minute diversion time than it would be on a route with a **3-hour** diversion time. 64 Fed. Rep. 22669 Apr 27, 1999. The apparent logic is that we aren't really relying on 207 minute diversion standards, but on closer airports which were unsuitable at departure time because the weather was forecast to be below current "suitable alternate" minimums. The implied assumption is that the forecasts are unreasonably pessimistic and

1 hat the real standards are the approach minimums and not the alternate minimums. We are to  
2 believe that diversion airports not available at dispatch time due to weather would be available  
3 anyway if needed. Of course, the reason alternate minimums are higher than approach minimums is  
4 because there is some uncertainty in weather forecasting. Forecasts can be either too optimistic or  
5 too pessimistic. Destination alternates also must meet weather standards based on additives to the  
6 approach minimums. The FM weather standards for destination alternates and those for diversion  
7 airports in ETOPS operations are only slightly different.

8 The implied logic is that the weather standards employed by the FM to determine if an  
9 alternate airport is "suitable" are too conservative. This proposal actually would reduce the weather  
10 standards for diversion airports. The proponents want to fly the same routes whether or not the  
11 180-minute diversion airports are forecast to have "suitable" weather. So what they really mean to  
12 do is lower the diversion airport weather standards. The proponents do suggest operational  
13 techniques such as re-release based on updated forecasts closer to the time when the alternates  
14 might be needed. That could solve the problem of overly pessimistic forecasts, but they only see it a  
15 way to verify the weather at the 207-minute alternates. They aren't interested in making the 180-  
16 minute standard work with the existing weather standards; they want to lower the standards. The  
17 proponents of change do not directly address the issue of alternate minimums even though the  
18 actual effect of their proposal is to lower alternate minimums. It is thus impossible to know what  
19 they would propose in place of the current weather standards for diversion airports. In fact, it would  
20 be more useful examine this question directly because:

- 21 (a) Such an analysis might reveal that the standards are too conservative in light of the  
22 available technology in newer aircraft and;
- 23 (b) That analysis would force an examination of the available landing aids at the diversion  
24 airports and;
- 25

- 1 (c) That examination would flush out the cost and feasibility of **improving those facilities**  
2 **and;**
- 3 (d) If the conclusion is reached that lower weather standards are **appropriate, then;**
- 4 (e) It would be necessary to consider what additional crew training **and** certification **would**  
5 be required, and;
- 6 (f) It would be necessary to codify MEL (minimum equipment **list**) standards that would  
7 insure that the required aircraft equipment is in fact **available** when needed.

8 The proponents would require that operators use only aircraft equipped for **autoland** and  
9 **that** the autothrottles be operative at departure. The implication is that the diversion airport weather  
10 standards used until now are outdated and should be revised to account for the automation which  
11 makes **Category** III operations possible. They apparently believe that diversion airport weather  
12 minimums should be based on additives to Category III minimums rather than Category I  
13 **minimums** or perhaps only Category III minimums without additives, they simply don't say. This  
14 **seems** logical at first glance, but a closer examination reveals some serious gaps in the logic. First of  
15 **all**, the proponents do not suggest what weather minimums should replace those currently **mandated**  
16 **by** the FAA. By not doing this they avoid addressing a number of critical issues:

- 17 (a) Diversion airport weather minimums are based on additives to the approach minimums  
18 for the airport involved. The approach minimums are based on the facilities available at  
19 the airport. Some of the available diversion airports have only rudimentary approach aid  
20 which would not accommodate Category III operations. Thus, reliance on automated  
21 approaches is a false reliance unless the airports involved are appropriately equipped;
- 22 (b) **Enroute** diversions are usually caused by some sort of safety critical situation. Often the  
23 reason is the failure of an engine or another **critical** aircraft component. If we are to **rely**  
24 on automated Category III approaches in these situations, then the flight crews involved  
25 must be trained and certified to conduct these operations. That is not the current



1 practice and it may be quite complex as the **myriad** of possible equipment failures which  
2 might compel a diversion may have a **variety** of effects on an aircraft's **Category III**  
3 capability. Without appropriate FAA required training there would again be false  
4 reliance;

5 (c) Diversion airports in the North Pacific region are often plagued by high winds.

6 Automated landing aids have not been very effective in dealing with strong winds. To  
7 the extent that winds as well as visibility may dictate the actual landing minimums at  
8 diversion airports, reliance on automation is again false.

9 Since the proponents of change seem to believe that lower diversion minimums are  
10 appropriate, one must ask why they don't address that problem directly. After all, the current version  
11 of the ETOPS Advisory Circular clearly states that the FAA will consider granting approval for  
12 operators to use lower than standard alternate weather based on Category II or III landing minima.  
13 FAA AC 120-42A, Appendix 3, par. 5, Dec. 30, 1988. Of course, the applicants would have to **show**  
14 **that** this procedure would be safe and reliable. They would have to address the questions posed  
15 **earlier** in this part of our comments. Apparently they would rather not do this.

16 One more point; the proposed "Approval Basis" section appears to waive suitable alternate  
17 weather minimums even for the **207-minute** diversion airports. Paragraph 5 refers only to  
18 "adequate" airports. This term does not account for weather. 64 Fed. Reg. 22668, Approval Basis,  
19 par. 5, Apr 27, 1999. This may be only a drafting error, as it seems inconsistent with the remainder of  
20 the submission. Nevertheless, it could be read to waive weather standards for all diversion airports.

21 If the issue of lower than standard alternate minimums can be dealt with, then it is even less  
22 likely that operators in the North Pacific will have to use **routings** other **than** optimum. As we have  
23 already pointed out, **this** is rarely the case, even with the existing standards. The proponents decline  
24 to address the specifics of the purported problem, the available airports, the facilities available at **the**  
25 airports and the weather patterns in the North Pacific. We therefore conclude that their agenda is

1 more general than improving the reliability of ETOPS operations in the North Pacific. In any case,  
2 there is a lot more work that needs to be accomplished before the FAA can possibly be satisfied that  
3 the proposed exemption is the most responsible alternative available, even if the FAA is inclined  
4 grant the exemption. We don't believe the proposal is adequate as it stands. That is not to say that it  
5 could not be made adequate by a more candid and thorough filing.

6 How would the exemption be used if granted?

7 It is impossible to answer that question as the proposed policy is written. Although the  
8 introductory letter signed by the proponents alludes to problems in the North Pacific, the material  
9 drafted for the FAA by the proponents appears to grant general approval for 207-minute ETOPS.  
10 There is no reference to any geographic area and the proposed change does not require that  
11 operators establish specific conditions before the requested authority is exercised. Paragraph (a)  
12 under "discussion" states "Due to a number of factors (including occasional political concerns,  
13 airport suitability considerations due to higher weather minima at dispatch, various weather related  
14 events and operational necessities), a need exists.." 64 Fed. Reg. 22668, Discussion, a., Apr. 27, 1999.  
15 That is a very comprehensive statement. In practice it will mean "at the unlimited discretion of the  
16 operator" if that operator already has approval for 180-minute ETOPS. Consider this; how would  
17 the captain of a scheduled flight who receives a release based on 207-minute ETOPS know whether  
18 that release complies with FAA standards? The answer is that it always would because no  
19 meaningful standards are stated in the draft proposal.

20 The Captain's 121.533 Responsibility

21 In paragraph 6 under "Approval Basis" in the draft proposal, operators are required to  
22 "inform" the flightcrew anytime an aircraft is dispatched under 207-minute authority; they shall  
23 make available the dispatch considerations "requiring" such operations. 64 Fed. Rep. 22668,  
24 Approval Basis, par. 6, Apr. 27, 1999. Perhaps the proponents could first explain to the FM what  
25 dispatch considerations "require" such operations. They haven't done so. AS the FAA knows very

1 well and all operators should know, the captain of a flight under part 121 has a joint responsibility  
2 with the dispatcher for flight planning. 14cfr 121.533(b). Any release is only proposed **until** the  
3 **captain** agrees that it is acceptable in all respects. A plan to inform the flightcrew is totally  
4 inadequate. The captain must have the opportunity to pass judgment on the validity of the planning  
5 in a meaningful way. This can only be done in relation to **207-minute ETOPS** if the FAA **establishe**  
6 reasonably objective criteria for the use of the proposed authority. This hasn't been done. Is  
7 dispatch under the proposed **207-minute** proposal "required" if a slightly longer route would satisfy  
8 **180-minute** requirements? Who decides and for what reasons? The captain will rightfully be held  
9 responsible for the planning of the flight, whether he is an actual participant in the planning or is  
10 merely informed as a part of the flightcrew. For that reason, he must have available objective **criteri**  
11 with which to evaluate any proposed release. Gray areas requiring judgment will arise often enough  
12 **even** when there are objective criteria. Without objective criteria and access to all the planning  
13 **information** available to the dispatcher, the captain's legally mandated role in ensuring that at least  
14 **two** fully qualified professionals independently agree that the proposed flight plan is acceptable has  
15 **been** nullified.

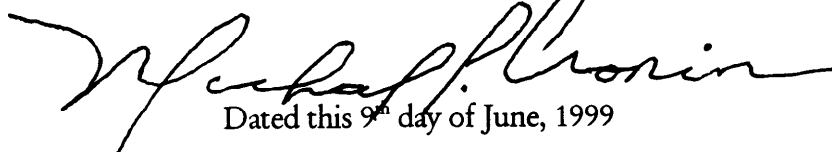
#### 16 Conclusion

17 The Allied Pilots Association has little doubt that both the operators and Boeing are  
18 **intimately** familiar with all the factors we have highlighted as missing from their submission. Why  
19 haven't they laid out all those factors and made the analysis and arguments that might support an  
20 exemption for North Pacific operations? Of course we don't know, but we suspect that the reasons  
21 are quite simple. If the proponents had to show that **180-minute ETOPS** is unworkable or unduly  
22 expensive in the North Pacific, they might not be able to make a persuasive case and the FAA **would**  
23 deny the exemption. If they were successful in making their case, it is likely that the FAA would  
24 **grant** a narrow exemption tailored to deal with the specific conditions of North Pacific operations..  
25

1 We don't believe the proponents want either result; they want a general extension of ETOPS. We  
2 don't think that's necessary or in the public interest.

3 Some Concerns about Process

4 The Allied Pilots Association is concerned about the process used to shape this proposal.  
5 ETOPS policies are very important public policies. ETOPS operations are the dominant feature of  
6 North Atlantic operations and probably will soon be so in the Pacific as well. The FAA's  
7 management of this policy has thus far been a real success. A great deal has been learned and the  
8 operations have been demonstrably safe. It does seem to us that the major policies that govern  
9 ETOPS should be regulations rather than an Advisory Circular. ETOPS operations have been going  
10 on since 1985 and are no longer experimental or innovative. Aircraft designs have stabilized. We are  
11 unaware of any new aircraft designs that are likely to be introduced in two engine long-range  
12 markets anytime soon. It seems to us a good time to formalize the ETOPS standards as regulations.  
13 For all those reasons, the Allied Pilots Association will file a petition for rulemaking on ETOPS in  
14 the very near future. We intend that petition to begin a process rather than be a conclusive answer to  
15 all questions. We don't claim to have all the answers, but we do think it is time to formalize the  
16 standards as rules.



Dated this 9<sup>th</sup> day of June, 1999

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